



Infant Mortality: Year in Review



Indiana State
Department of Health

Infant Mortality



Defined as the death of a baby before his/her first birthday

The Infant Mortality Rate (IMR) is an estimate of the number of infant deaths for every 1,000 live births

Large disparities in infant mortality in Indiana and the United States exist, especially among race and ethnicity



**Infant Mortality is the
#1 indicator of health
status in the world**

Indiana Infant Mortality

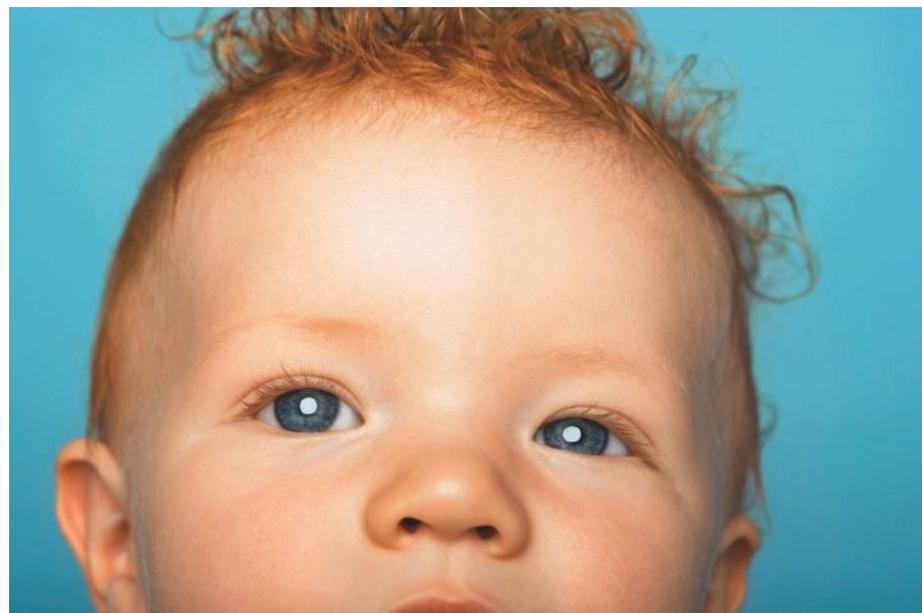
The Healthy People 2020 goal for Infant Mortality is 6.0 per 1,000

IN 7.1 per 1,000 (2014, unchanged from 2013)

U.S. 5.82 per 1,000 (2014, lowest rate in U.S. recorded history)

Large disparity among races in Indiana, with Black infants being **2.5 times** more likely to die than White infants

Rate of SUIDs deaths typically **worse** than the national rate



Infant Mortality Rates Indiana, U.S. and Healthy People 2020 Goal: 2007 - 2014

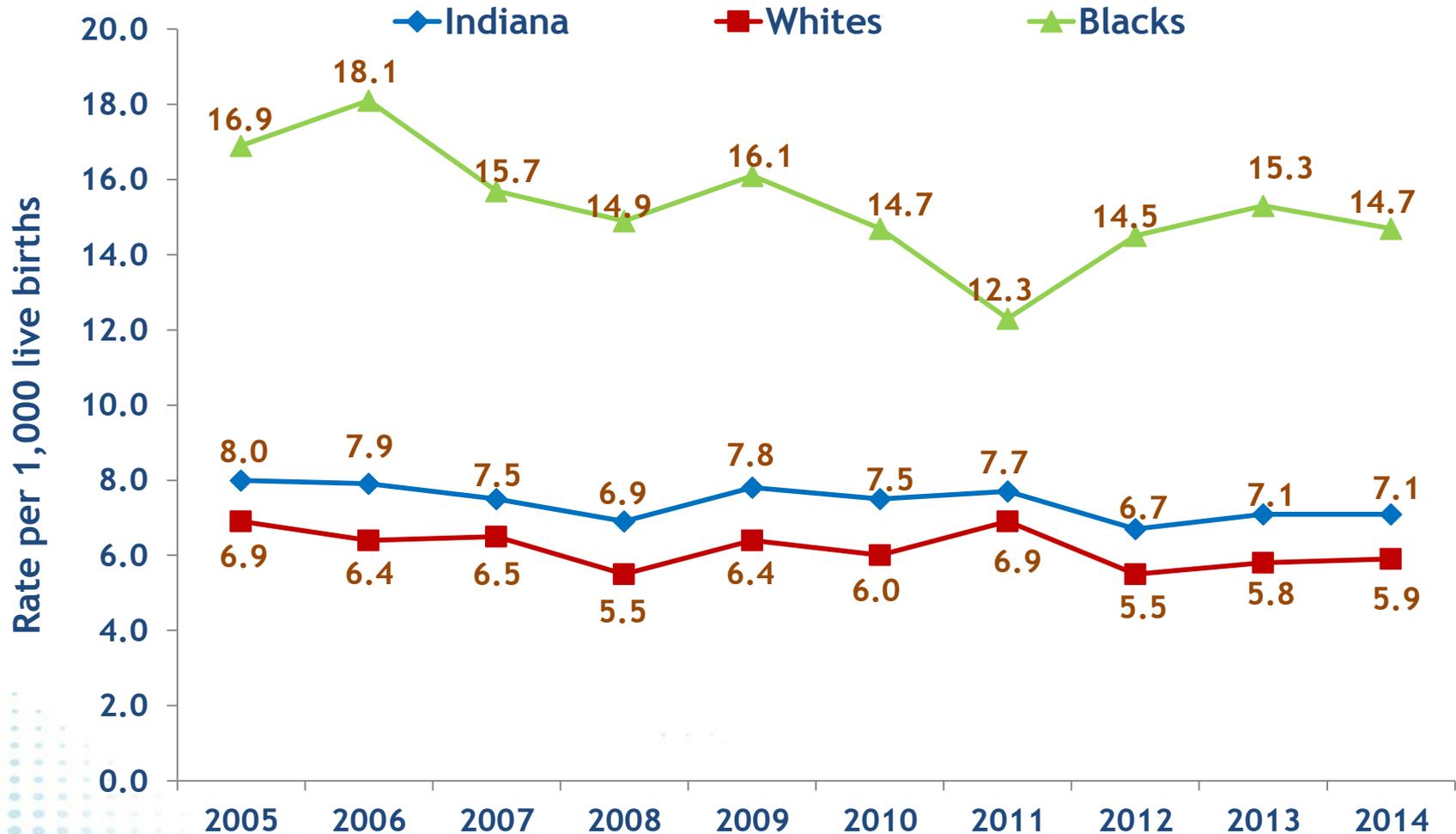


Source: Indiana State Department of Health, Maternal & Child Health Epidemiology Division [February 23, 2016]

United States Original: Centers for Disease Control and Prevention National Center for Health Statistics

Indiana Original Source: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

Infant Mortality Rates by Race Indiana 2005 - 2014

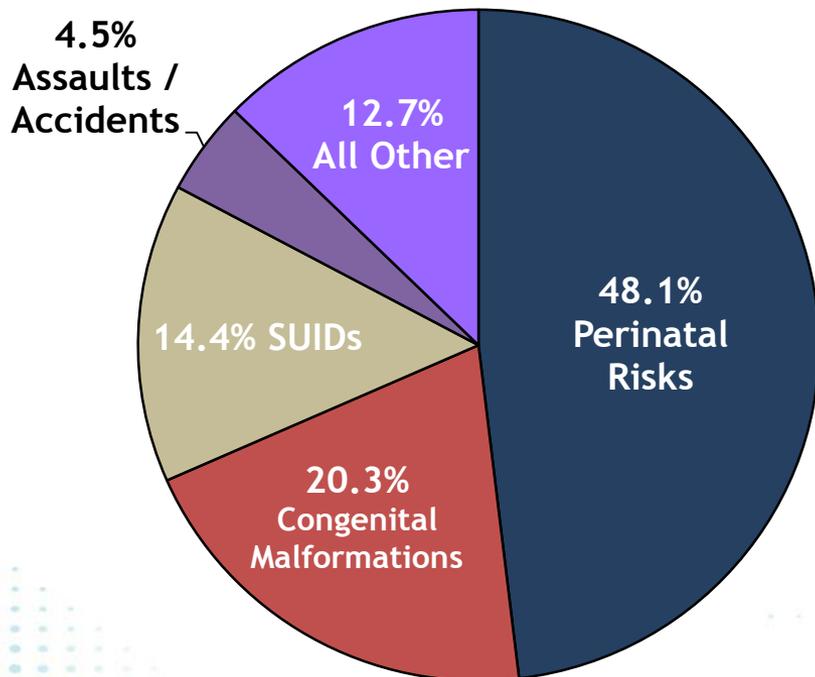


Source: Indiana State Department of Health, Maternal & Child Health Epidemiology Division [February 23, 2016]

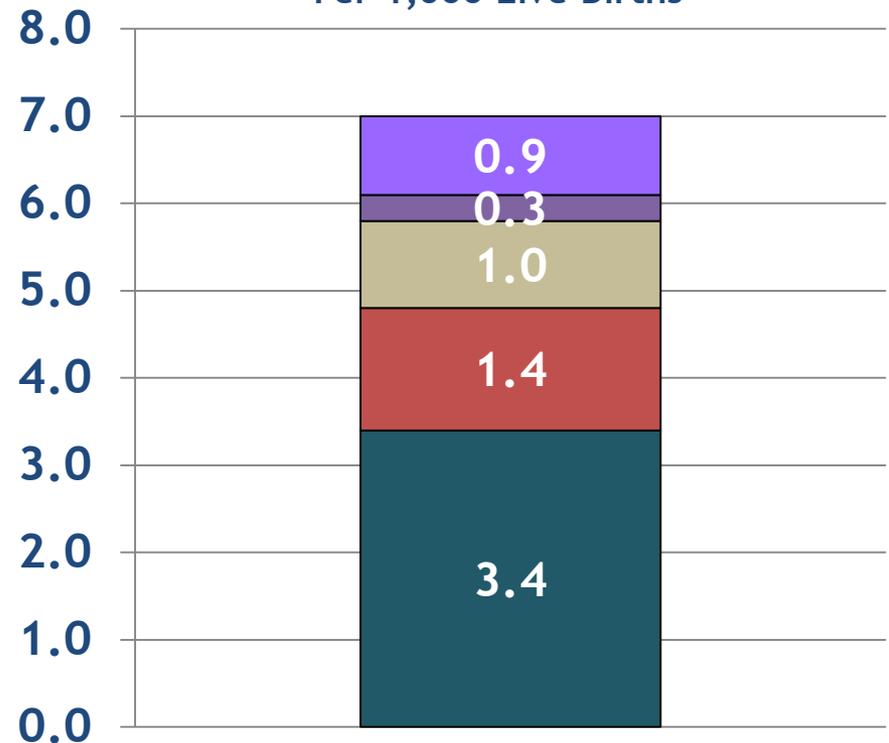
Indiana Original Source: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

Infant Mortality Distribution by Cause Indiana: 2014

% Distribution of Infant Deaths
N = 597



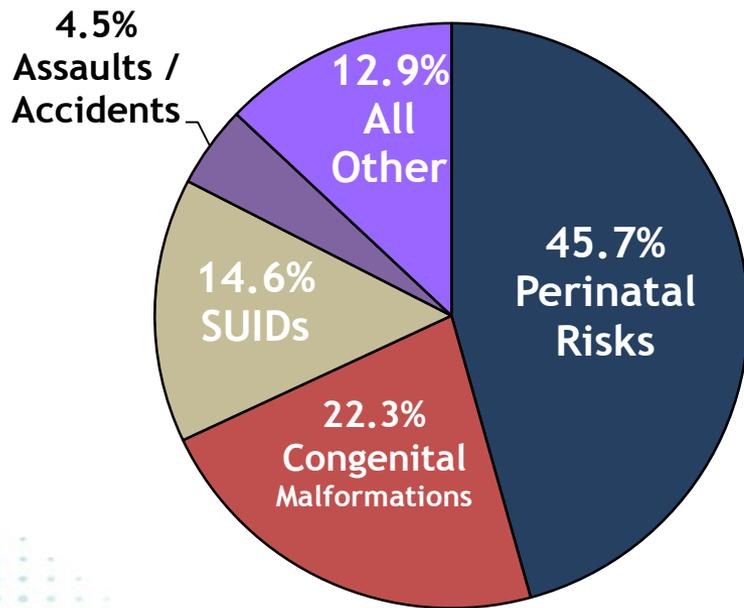
Cause Specific Mortality Rates*
Per 1,000 Live Births



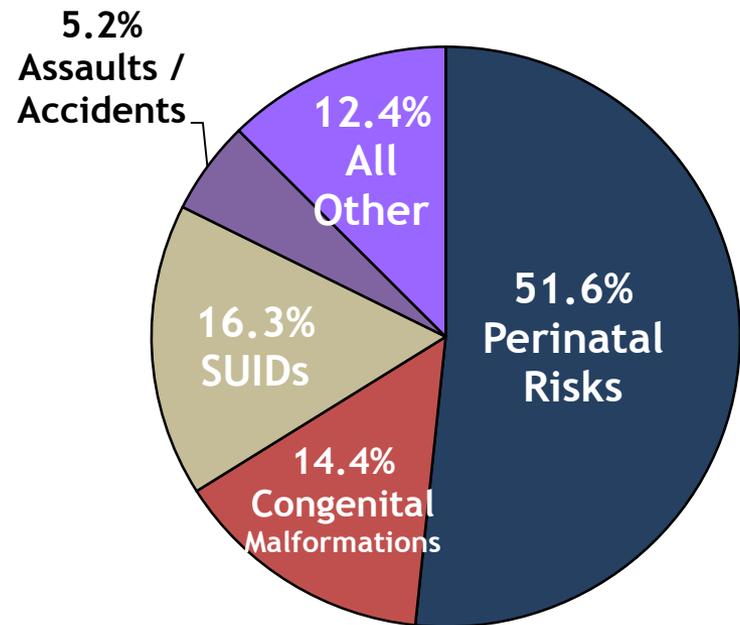
*Note: Cause specific mortality rates may not exactly equal the overall infant mortality rate due to rounding.
Source: Indiana State Department of Health, Maternal & Child Health Epidemiology Division [February 24, 2016]
Indiana Original Source: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

Infant Mortality Distribution by Cause Indiana, by Race: 2014

**% Distribution of Infant Deaths
Whites
N = 403**



**% Distribution of Infant Deaths
Blacks
N = 153**



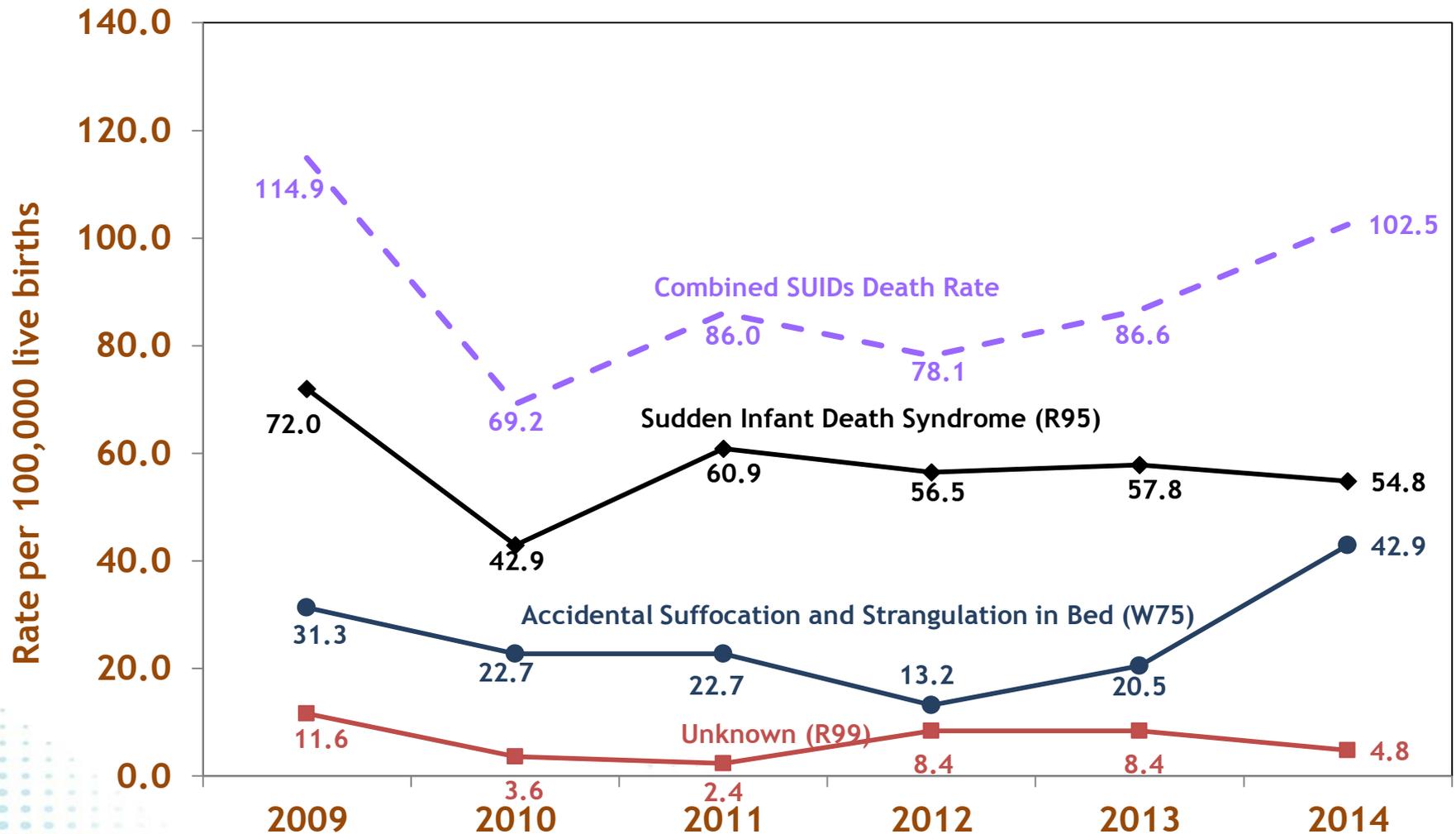
2010 – 2014

Infant Mortality Rates by Zip Code

Zip Code	County	Births	Deaths	Infant Mortality Rate (IMR)	White IMR	Black IMR
46312	Lake	2,517	41	16.3	**	27.8
46953	Grant	1,416	23	16.2	16.0*	**
46324	Lake	1,479	23	15.6	17.4*	20.9*
46806	Allen	2,426	37	15.3	7.5*	24.1
46226	Marion	3,502	52	14.8	5.3*	19.5
46208	Marion	1,477	21	14.2	7.1*	18.2*
46201	Marion	2,899	40	13.8	7.4*	23.8
46218	Marion	2,544	31	12.2	**	14.1
47302	Delaware	1,875	22	11.7	12.1	**
46203	Marion	3,351	39	11.6	10.1	14.4*
46229	Marion	2,070	23	11.1	6.8*	13.0*
46219	Marion	2,387	26	10.9	7.3*	17.8*
47711	Vanderburgh	1,986	21	10.6	11.1	**
46205	Marion	2,403	25	10.4	7.5*	12.6*
46222	Marion	3,167	32	10.1	4.9*	15.5*

*Numerator less than 20, the rate is unstable.
 **Rate has been suppressed due to five or fewer outcomes.

SUIDs Rates by Cause Indiana, 2009-2014



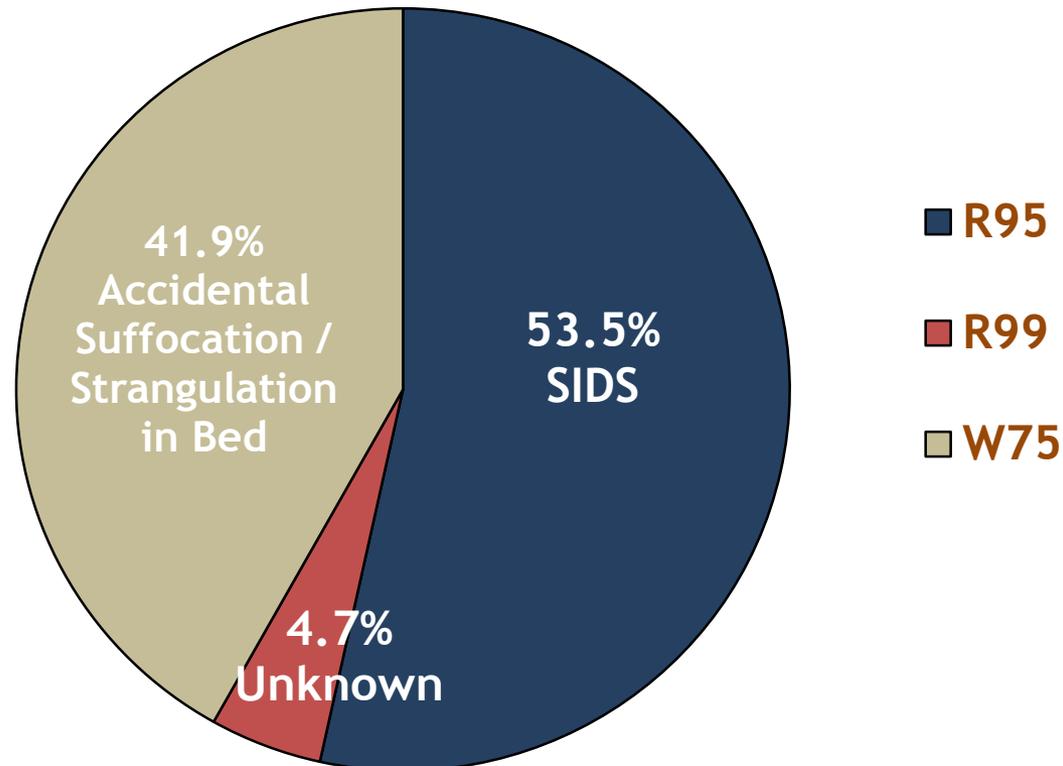
SUIDS = W75, R95, R99

Source: Indiana State Department of Health, Maternal & Child Epidemiology Division [December 21, 2015]

Indiana Original Source: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

Breakdown of SUIDs deaths Indiana, 2014

% Distribution of SUIDs Deaths
N = 86



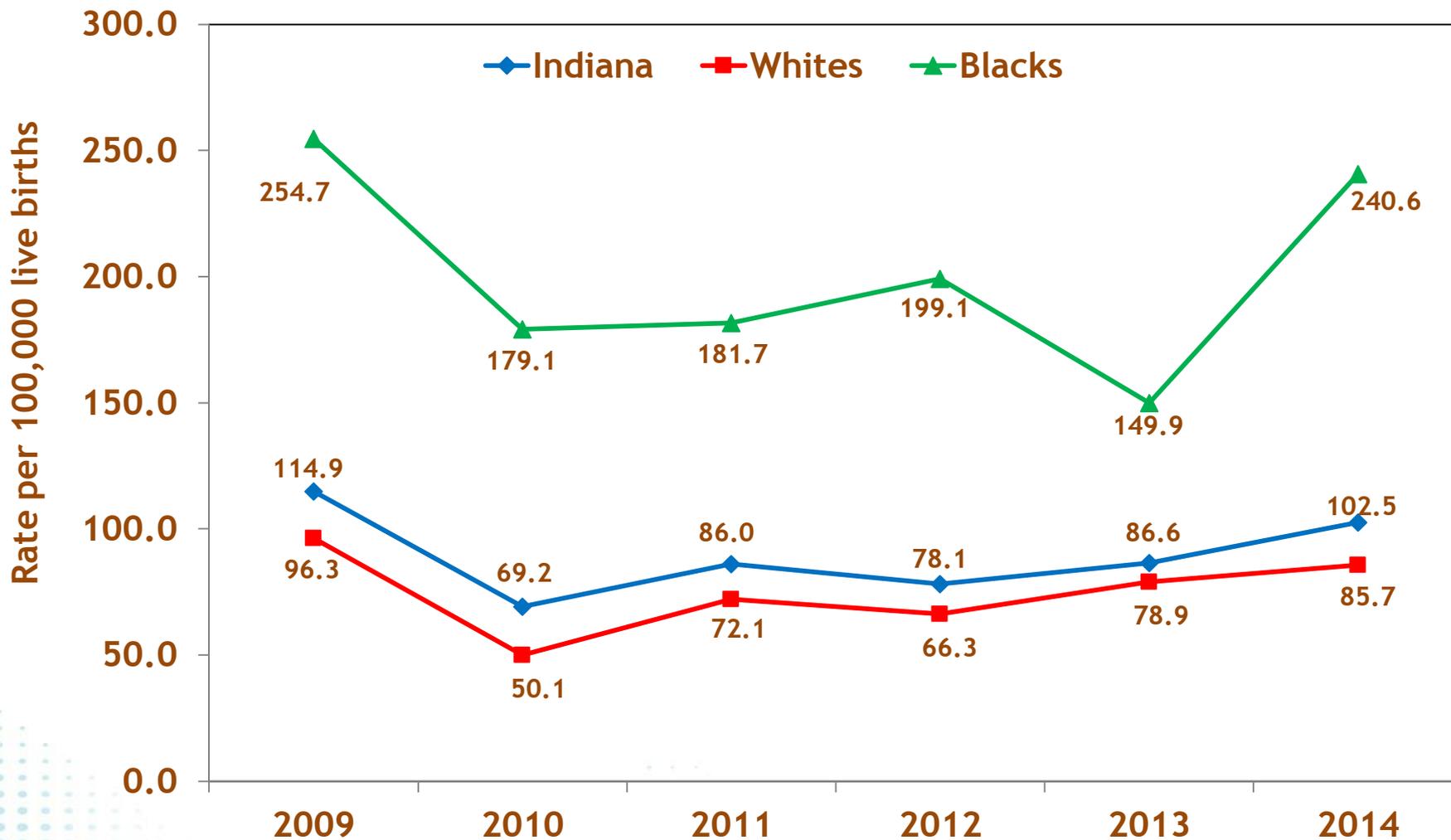
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SUIDS = W75, R95, R99

Source: Indiana State Department of Health, Maternal & Child Epidemiology Division [December 21, 2015]

Indiana Original Source: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

SUIDs Rates by Race Indiana, 2009-2014



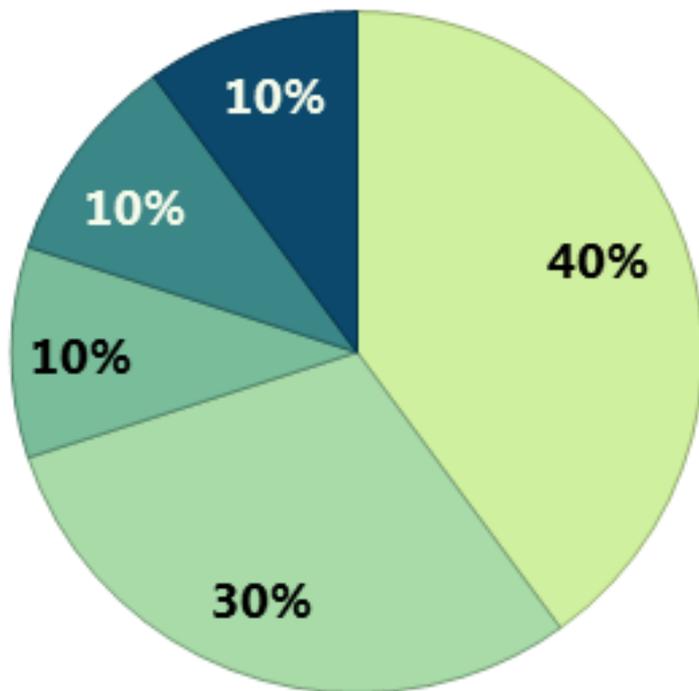
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Factors Influencing Health and Well-Being

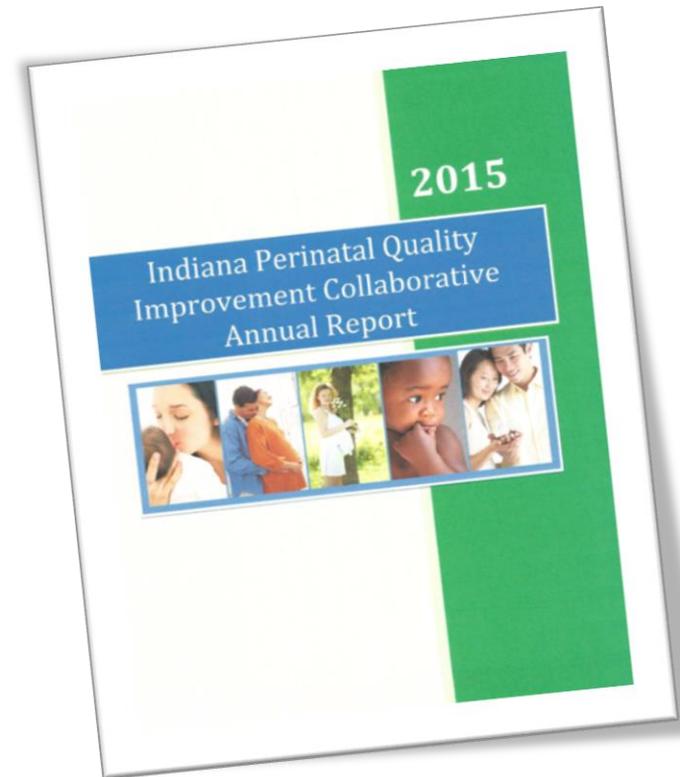


- Social and Economic Factors
- Health Behaviors
- Clinical Care
- Physical Environment
- Genes and Biology

Indiana Perinatal Quality Improvement Collaborative

IPQIC Highlights

- **Early Elective Deliveries:** July 2014, Medicaid stops paying for non-medically indicated inductions before 39 weeks
- **Neonatal Abstinence Syndrome (NAS):** December 2015, four Indiana hospitals are piloting programs to identify and report on NAS
- **17P:** June 2015, development of recommendations for utilization of progesterone therapies to prevent prematurity
- **Birth Certificate:** QI project that made system improvements to Indiana Death Registry System, including provision of training, feedback mechanisms, and recommendations for next phase of QI



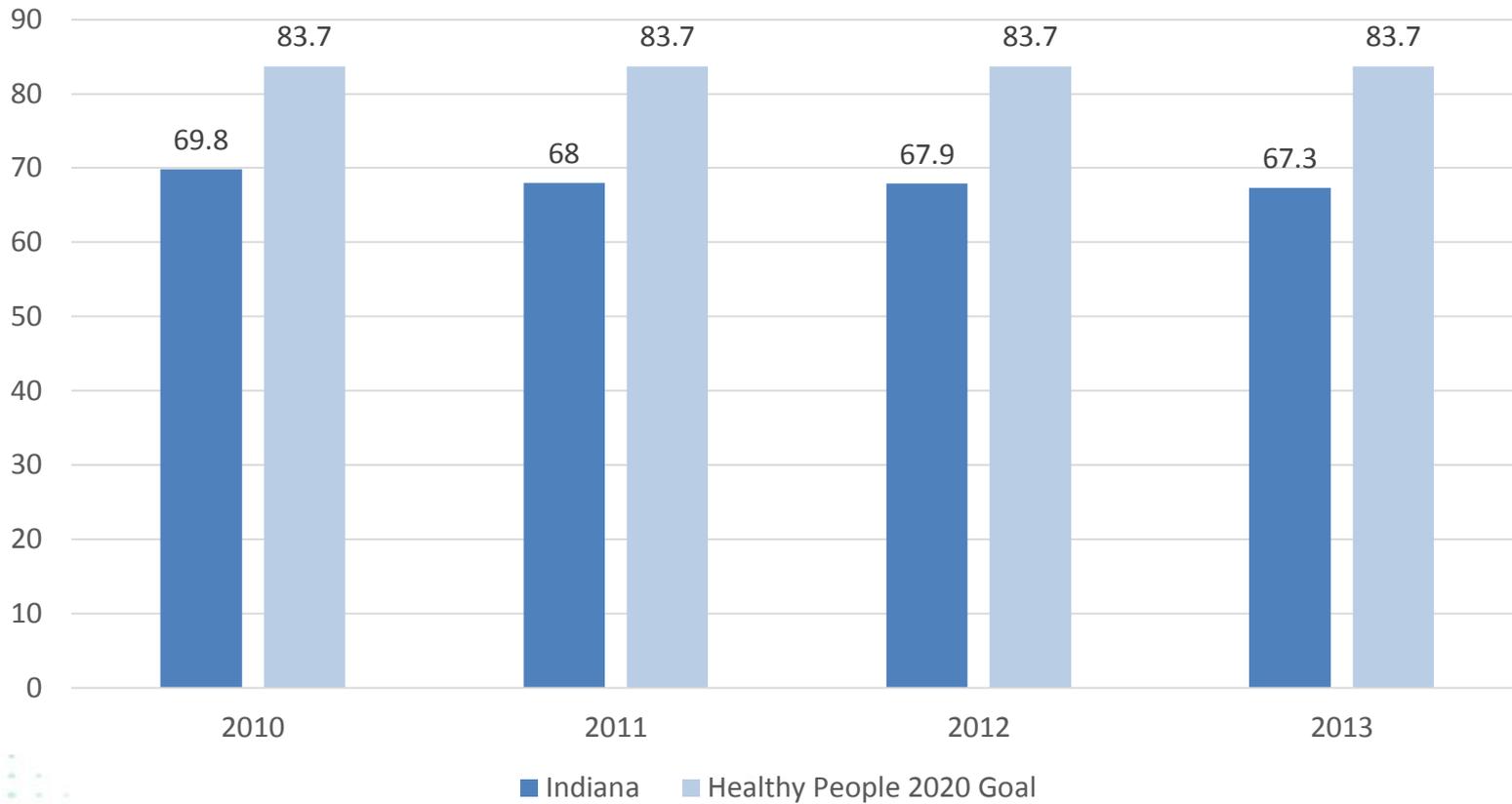
Perinatal Levels of Care

Vision Statement:

- All perinatal care providers and all hospitals have an important role to play in assuring babies born in Indiana have the best start in life.
- All babies will be born when the time is right for both the mother and the baby.
- Through a collaborative effort, all women of childbearing age will receive risk-appropriate care before, during and after pregnancy.



Percent of VLBW Born in Level III Hospitals



Levels of Care and Survey Status For Indiana Birthing Hospitals

Maternal and Child Health, Indiana State Department of Health

As of March 1st, 2016

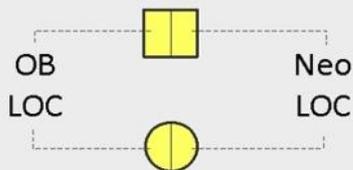
Applied Level of Care (LOC)

n=90



Hospital Locations

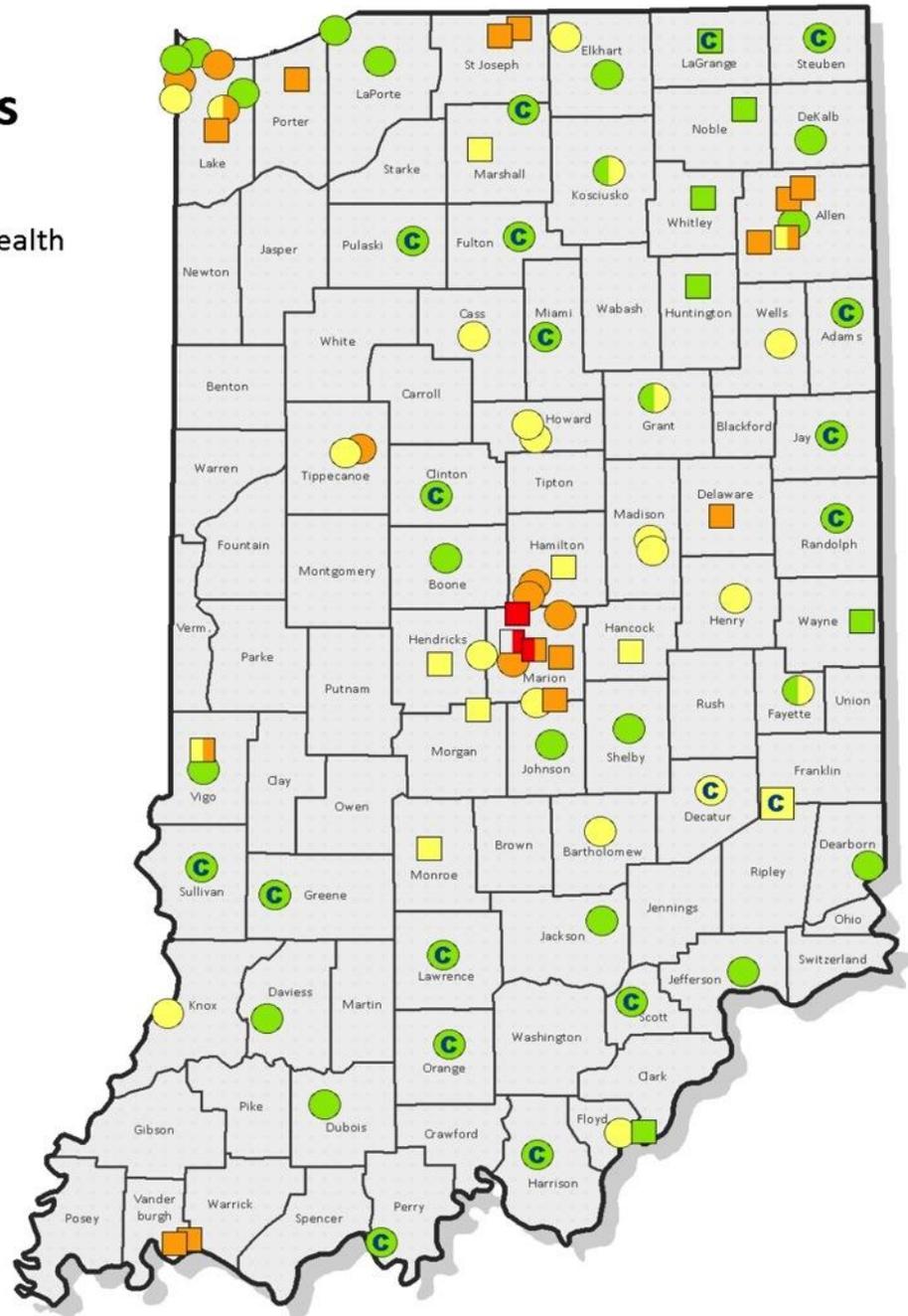
Surveyed (*n=30*)



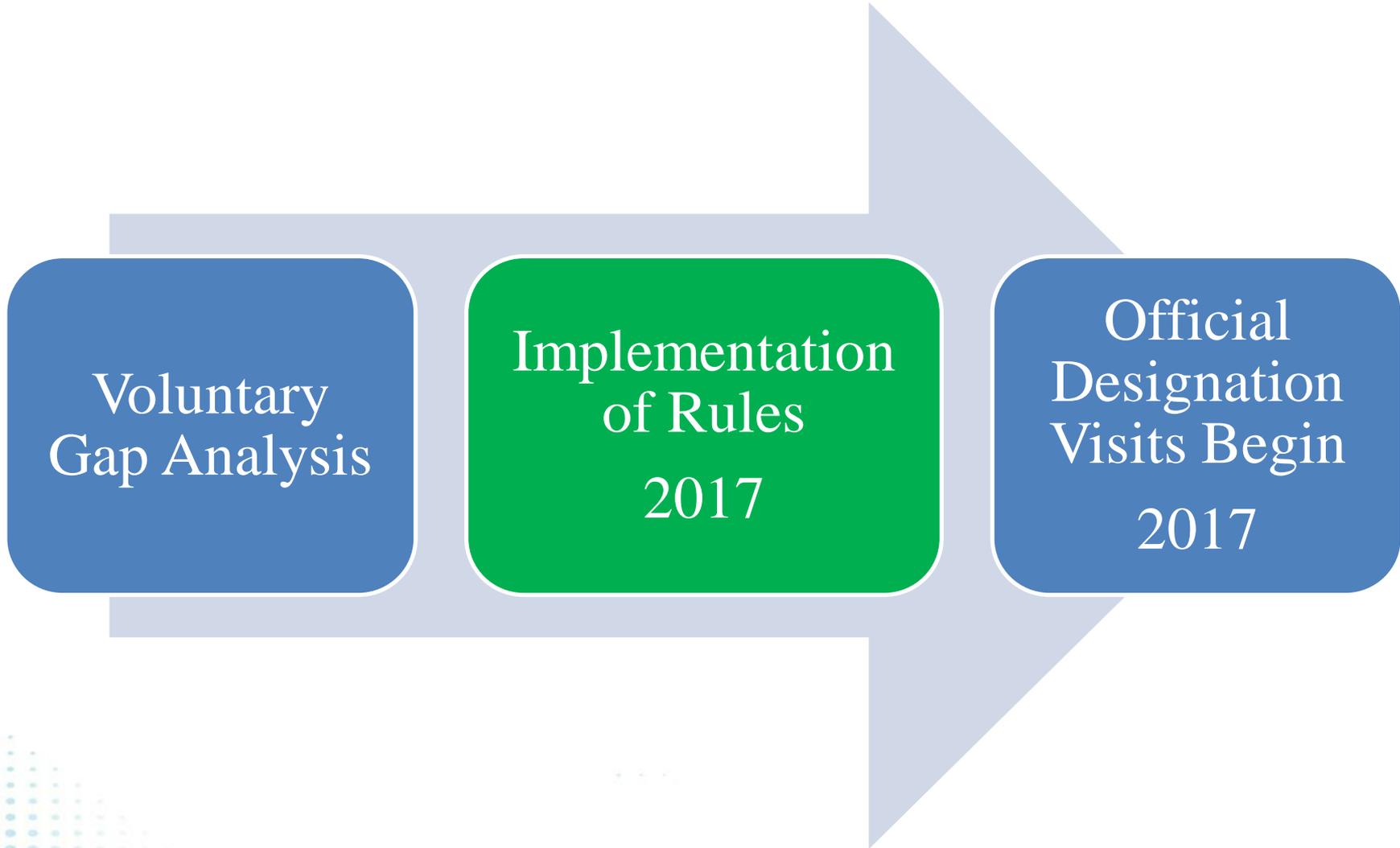
In Que (*n=60*)

C = Critical Access (CAH)

(*21% of hospitals*)



Levels of Care timeline



Perinatal Centers

- Level III or IV OB and Neonatal
- Responsibilities to affiliate hospitals:
 - Education
 - Quality improvement
 - Support services
 - Back transport
 - Developmental follow-up for high risk infants



Labor of Love
Helping Indiana Reduce Infant Death



Getting regular prenatal care is critical for your baby's health. And yours. If you lack resources, you have options. Visit www.LaborofLove.org or call the MCH MOMS Helpline at 1-844-MCH-MOMS to learn more.



Labor of Love
Helping Indiana Reduce Infant Death

Campaign Goals:

- Raise awareness of the problem of infant mortality in Indiana, and engender support for education and prevention efforts.
- Educate Hoosiers that everyone has a role to ensure our babies reach their first birthdays.

Baby and Me, Tobacco Free™

Baby and Me, Tobacco Free™ (BMTF) is an evidenced-based smoking cessation program for pregnant women, through her child's first birthday

- Program Components
 - Individualized education from BMTF certified facilitator
 - 4 sessions prior to baby's birth
 - Monthly postpartum visits until baby turns 1
 - Biochemical testing at every visit
 - Provides up to 12, **\$25** diaper vouchers



Baby and Me, Tobacco Free™

October 2013 – March 2016

1,532 Program Enrollees*

369 Infants born nicotine-free

- 92% born \geq 37 weeks gestation
- 95% born \geq 5 lbs. 8 oz.

1,620 Vouchers distributed

2014 Data

- 15.1% pregnant Hoosiers smoke
- County rates range from 2.7% to 38.5%
- For women on Medicaid, the number jumps to 25.3%

Baby and Me,
Tobacco Free™
Program Sites.

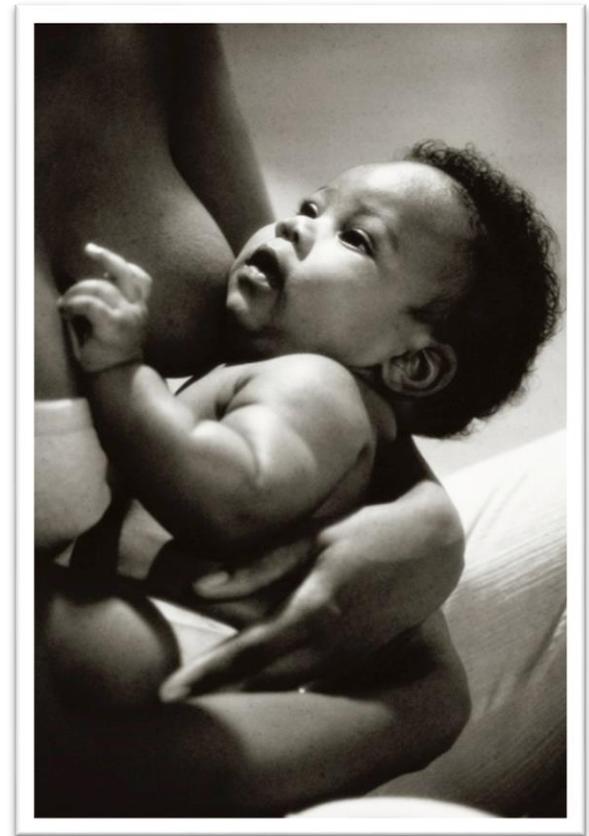


Breastfeeding

If 90% of US families followed medical recommendations to breastfeed exclusively for 6 months, the United States would save

- \$13 billion per year,
- prevent an excess 911 deaths.

Nearly all lives saved would be infants (\$10.5 billion and 741 deaths at 80% compliance).



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[http://www.in.gov/isdh/files/Indiana_State_Breastfeeding_Plan_Final_2016\(1\).pdf](http://www.in.gov/isdh/files/Indiana_State_Breastfeeding_Plan_Final_2016(1).pdf)

Bartick, M., Reibold, A. (2010). The burden of suboptimal breastfeeding in the United States: a pediatric cost analysis. *Pediatrics*, 125(5). E1048-56. doi: 10.1542/peds.2009-1616. Epub 2010 Apr 5.

Centering®

An Evidence-Based Practice
to Improve Birth Outcomes

Better Care • Better Health • Lower Cost

ISDH is expanding Centering Pregnancy in Indiana by funding:

- Advanced Training and Expansion of Centering at Eskenazi facilities
- A brand new implementation of Centering at the Women's Prison
- Certification of Centering implementation at Maple City Health Care Center in Goshen

ISDH is bringing current, and newly interested parties together by spearheading a statewide *Centering Consortium* in an effort to maximize awareness and facilitate new implementations of this program model that has shown marked success in reducing infant mortality and disparities.

CenteringConnects™



Child Fatality Review	Fetal Infant Mortality Review
Focus on Injury Prevention	Focus on Improving Health Resources and Access
Birth – 17 years	Fetal Loss Infants: Birth – 1 year

Commonalities Between Reviews

- Shared cases – child maltreatment, SUID/SIDS/Unsafe Sleep
- Goals of improving systems, supporting families and preventing deaths
- Shared membership
- State and local focus
- Data collection and reporting



Child Fatality Review

Child Fatality Review (CFR) Teams currently in 91 counties

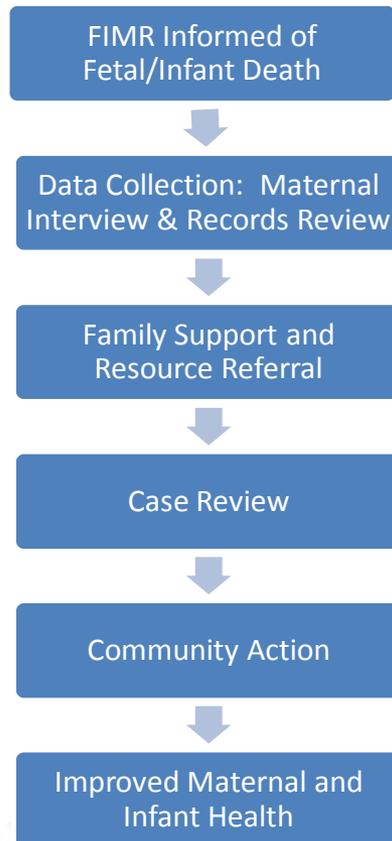
Impact Highlights:

- Death due to consumer product resulted in warning labels to prevent strangulation/choking.
- Local team noticed need for enhanced communication between drug task force and local DCS office that resulted in new policy and improved system response.
- Safe Sleep education in local high school became integral part of ongoing curriculum.
- Many teams have prevention programs in areas such as: water safety, gun safety, and safe sleep.



Fetal Infant Mortality Review

The FIMR Process



Fetal and Infant Mortality Review (FIMR)

- Currently 6 FIMR teams covering 14 counties
- 2 in formation will cover 6 additional counties
- Marion County FIMR well established and has informed many intervention/prevention strategies and serves as resource for others

The purpose of the FIMR is to understand how social, economic, health, educational, environmental and safety issues result in an infant death.

Then, state systems and local communities use that information to improve systems of care and community resources to reduce fetal and infant mortality moving forward.

Safe Sleep



Cribs for Kids[®] sites throughout Indiana provide safe-sleep education by distributing a Graco[®] Pack 'n Play[®] portable crib, pacifier, and safe sleep information to families who cannot otherwise afford a safe place for their babies to sleep.



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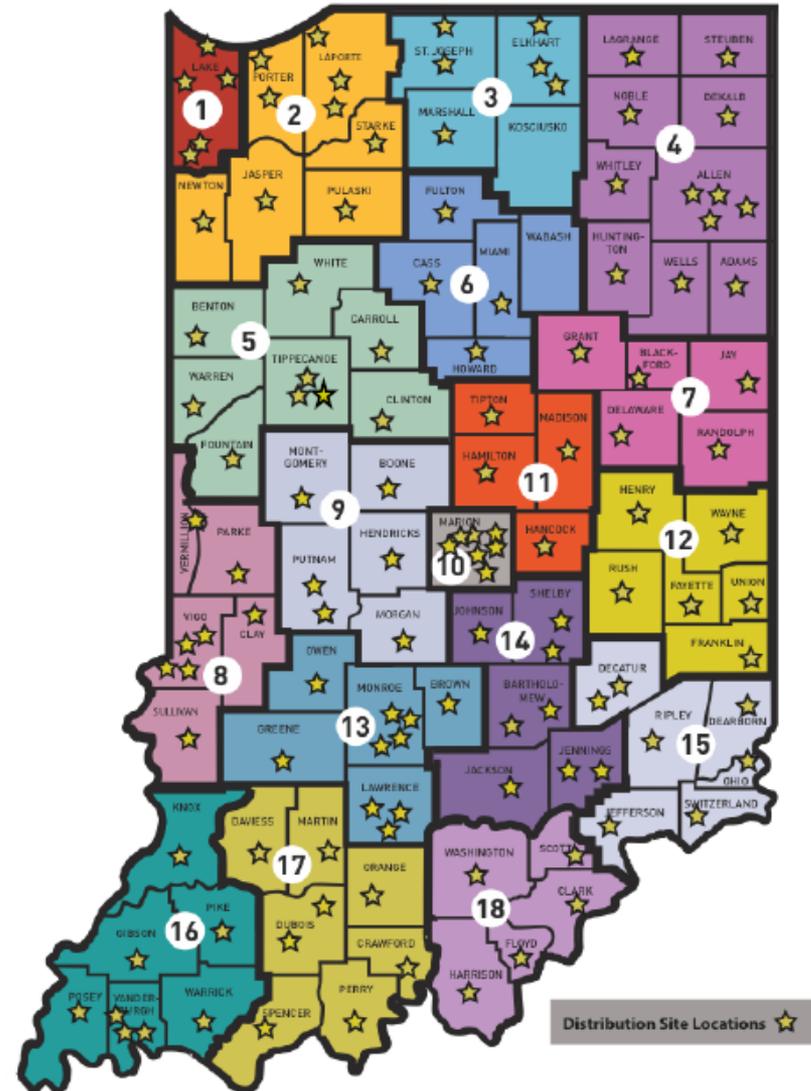
Safe Sleep Program Highlights

Messages: Focus on the **ABC's** of Safe Sleep practices recommended by the American Academy of Pediatrics and National Institutes of Health:

- ✓ Babies should sleep **A**lone
- ✓ On their **B**acks
- ✓ In a **C**rib or bassinette

Achievements :

- More than 100 crib distribution partners joined the program since its inception in July 2014
- The program is now accessible in 91 of the 92 counties
- Since July 2014 approximately 6000 cribs went out to families across the state





Nurse-Family Partnership® (NFP), is a maternal and early childhood health program that fosters long-term success for first-time moms, their babies and society. NFP has been widely researched and recognized for increasing healthcare access and improving health outcomes.

To qualify for the program, a woman must be less than 28 weeks pregnant with her first child, be Medicaid eligible, and live in a county where services are currently offered.

NFP can reduce infant death, by providing prenatal care and teaching parents about and encouraging smoking cessation, breastfeeding and safe sleep.



93% of children age 24 months were fully immunized

33% of NFP households had an increase in income and benefits

90% of babies were born full term

85% of mothers initiated breastfeeding

90% were born at a healthy weight (≥ 5.5 lbs.)

Provided in Indiana by Goodwill Industries, NFP began in Marion County in November 2011 and today serves more than 500 families.

The program has expanded to Lake, Delaware, Madison, Tippecanoe, and White Counties*, with a capacity to serve more than 1,000 families.



The key to a healthy baby and a happy mom

Launched on March 1st, 2016!

- ♥ Provide information, referrals and resources relating to maternal and child health care services.
- ♥ Connect mothers and pregnant women with a network of prenatal and child health care services within local communities, state agencies and health care organizations around the state.



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MOMS Helpline Goals

- ♥ Promote the MOMS Helpline and the Labor of Love campaign goals throughout the state of Indiana.
- ♥ Provide valuable health care information and referral services to help reduce Indiana's infant mortality rate.
- ♥ Educate and advocate on behalf of moms and pregnant women.



The key to a healthy baby and a happy mom



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Department of Health

MOMS Helpline Team

Diana Feliciano – Helpline Manager

Communication Specialists

Bertha Glenn

Troyce Golden

Patricia Ewing

Wanda Rasdall

Stacey Ware

Resource Database Specialist

Gary Jones – Lead Specialist



MCH
**MOMS
HELPLINE**

1-844-MCH-MOMS
(844-624-6667)

The key to a healthy baby and a happy mom

Please visit our website for
a full list of services:

<http://www.MomsHelpLine.isdh.in.gov>

The MCH MOMS Helpline (formerly known as the Indiana Family Helpline) is a program of the Indiana State Department of Health, Maternal and Child Health Division.

Monday – Friday
7:30am – 5:00pm

Spanish-speaking specialists
available

Genomics and Newborn Screening

Two program areas:

- 1. Genomics:** IN Birth Defects and Problems Registry (IBDPR)
- 2. Newborn Screening (NBS):** All newborns are mandated to have certain screens before leaving birth hospital



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Genomics: IBDPR

- IBDPR: IN Birth Defects and Problems Registry
- Annual report and statistics available at:
http://www.in.gov/isdh/files/ibdpr_progress_report_july2013_june2014.pdf
- Physicians' offices required to report certain birth defects
 - Up to age 3 for most reportable birth defects
 - Age 5 for Fetal Alcohol Spectrum Disorders (FASD)
 - Any age for autism spectrum disorders (aka, pervasive developmental disorders)
- Instructions for reporting and full list of conditions available here: <http://www.in.gov/isdh/20571.htm>
- Hospitals passively report by submitting a large file of reportable ICD-9 codes monthly

Newborn Screening (NBS)

3 mandated screens:

- 1. Heelstick** (45 conditions): blood specimen 48hrs after birth
 - Inborn errors of metabolism
 - Endocrine conditions
 - Cystic fibrosis
 - Sickle cell
- 2. Pulse oximetry** screening for critical congenital heart defects (CCHD): 24 hrs after birth
- 3. Universal Newborn Hearing Screen:** overseen by the Early Hearing Detection and Intervention (EHDI) program



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Why do these screens?

- Required by Indiana Code 16-14-17
- Early detection & treatment of NBS disorders
 - Lessens severity
 - Improves quality and length of life
- Lack of early detection can lead to:
 - Severe intellectual disability
 - Inadequate growth & development
 - death



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Safety PIN bill

- Appropriates \$13.5 million to fight infant mortality in Indiana
- In two ways:
 - \$2.5 million to develop a two-way app for pregnant moms to encourage better prenatal care
 - 8 applicants; evaluating proposals at this time
 - \$11 million to distribute through a grant program

Safety PIN grants

- Innovative approaches to address IM
- Must show infant mortality rate reduction
- Competitive grants for:
 - Health departments
 - Hospitals
 - Other health care related entity
 - Nonprofit organizations
- Completed applications July 1



Mark your calendars!

Labor of Love Infant Mortality Summit

Monday, October 17, 2016

JW Marriott

10 S. West Street

Indianapolis, IN 46204



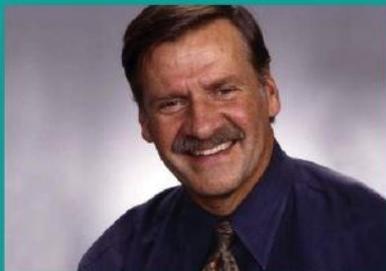
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For registration and additional information, visit:
www.infantmortalitysummit-indiana.org



Tanya Lewis Lee
*Author, Producer
and Activist*



Kyle Pruett, MD
*Child Psychiatrist
and Author*

For registration and additional information, visit:
www.infantmortalitysummit-indiana.org

Featured Speakers:



Ryan Adcock
*Director
Cradle Cincinnati*

Emcee:



Debby Knox
CBS4 News Anchor

Labor of Love Summit
Monday, October 17, 2016
JW Marriott
10 S. West Street
Indianapolis, IN 46204



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Helping Indiana Reduce Infant Death



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Summary

- *597 infants* in Indiana died before their first birthday
- Black infants in Indiana are *2.5X more likely to die* than white infants
- 14.4% of infant deaths can be attributed to *SUIDs*
- Much *higher percentage* of women *smoking* during pregnancy when compared to the nation
- *Lower percentages* of women *receiving early prenatal care* and *breastfeeding* when compared to the U.S.
- *Large disparities* in all indicators make prevention efforts complex



Areas of opportunity

- Levels of care delivery centers
- Smoking cessation
- Wrap around services – perinatal
- Pre-natal care access
- Safe sleep
- Shared quality outcomes – common data set
- Shared collaboration structure – IPQIC



Proud to be Partners!



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